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(54) Title: ESSENTIAL AND IMPORTANT GENES OF PSEUDOMONAS AERUGINOSA AND THE USE THEREOF TO DESIGN OR IDENTIFY ANTIBACTERIAL AGENTS

(57) **Abstract:** The invention includes a database of candidate essential genes in *Pseudomonas aeruginosa*, as well as otherwise important genes that, when mutated, lead to a growth attenuated phenotype. Such genes and mutants of such genes are important for identifying antibacterial agents suitable for treating and preventing *Pseudomonas aeruginosa* infections. The invention includes methods for confirming the essentially or importance of candidate genes, as well as methods for utilizing those genes to screen for new antibacterial drugs. The invention also includes the antibacterial agents identified using the disclosed methods, as well as methods of using the same for treating and preventing *Pseudomonas* infection.